

1-36. (Canceled)

37. (Previously presented) An integrated semiconductor structure comprising:
a multijunction solar cell structure having at least first and second subcells; and
a bypass device integral to a subcell for passing current when the solar cell is shadowed and having p-type, i-type and n-type layers;
wherein the bypass device and the subcell have an identical sequence of semiconductor layers where each layer in the bypass device has substantially the same composition and thickness as the corresponding layer in the subcell and form an integral semiconductor body.

38-46. (Canceled)

47. (Previously presented) A solar cell semiconductor device comprising:
a semiconductor body having a sequence of layers of semiconductor material including a first region in which the sequence of layers of semiconductor material forms a sequence of cells of a multijunction solar cell with the top layer of the top cell having a first polarity; and
a second region in which the sequence of layers is laterally spaced apart and laterally separated from said first region and in which the sequence of layers forms a support for an integral bypass diode to protect said sequence of cells against reverse biasing at less than breakdown voltage, the bottom layer of the bypass diode having said first polarity
wherein the first region and the second region have an identical sequence of layers where each layer in the first region has substantially the same composition and thickness as the corresponding layer in the second region and form an integral semiconductor body.

48-68. (Canceled)

69. (Currently Amended) ~~A device as defined in claim 65;~~ A solar cell semiconductor device comprising:

- a substrate;
- a first sequence of layers of semiconductor material deposited on said substrate, including a first region in which the sequence of layers of semiconductor material forms at least one cell of a multijunction solar cell where the top layer of the top cell has a first polarity;
- a second region including said first sequence of layers, and a second sequence of layers that forms a bypass diode to protect said at least one cell against reverse biasing at less than breakdown voltage where the bottom layer of the bypass diode has the same polarity as said first polarity of said top cell;
- a metal layer deposited on a portion of said substrate and over at least a portion of said second region for electrically shorting the first sequence of layers of said second region and to electrically connect to said bypass diode in said second region; and
- wherein the first region and the second region have an identical sequence of semiconductor layers where each layer in the second region has substantially the same composition and thickness as the corresponding layer in the first region and form an integral semiconductor body and wherein said bypass diode includes p-type, i-type, and n-type layers.

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